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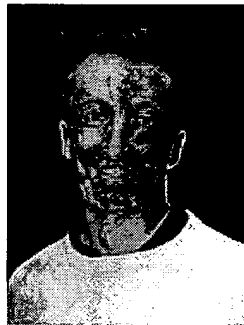
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Avaya Labs Research

**Larry O'Gorman****Larry O'Gorman's Web Page**

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**Fields of Work:**

- Image processing, pattern recognition, security
- End-user authentication
- My work in the recent few years has combined aspects of signal processing and security. Applications include: biometrics, anti-counterfeiting of documents, and watermarking.

**Recent Publications:**

- "[Comparing Passwords, Tokens, and Biometrics for User Authentication](#)," Proceedings IEEE, Vol. 91, No. 12, Dec. 2003, pp. 2019-2040. Paper compares the 3 general types of authenticators with respect to security advantages and disadvantages.
- "[Call center customer verification by query-directed passwords](#)," Int. Conf. Financial Cryptography, FC'04, Florida, Feb. 2004. Paper describes how QDP (Query-Directed Passwords) can be used for convenient and secure customer authentication at call centers.
- "[Securing Business's Front Door](#)", 30-Sept-02  
Paper describes authentication technologies to a business audience, including passwords, smart cards, biometrics, and future technologies. (Word document.)
- "[Human Authentication: The Achilles Heel of Secure Systems](#)"  
Background on human authentication, issues with current technologies, future trends and technologies. Presented at Stevens Institute, 25-Mar-02. (Powerpoint presentation.)
- "[Seven Issues with Human Authentication Technologies](#)" Technological

issues and limitations with human authentication methods as applied to public security applications. Presented at CAIP Symposium on Information Technologies for Homeland Security, Rutgers University on 29-Nov-01. (Powerpoint presentation.)

**Other External Publications, Etc:**

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Avaya Labs Research

**Larry O'Gorman**

## **Lawrence O'Gorman Publication List:**

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L. O'Gorman, "Comparing Passwords, Tokens, and Biometrics for User Authentication," Proc. IEEE, Vol. 91, No. 12, Dec. 2003, pp. 2019-2040.

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### **Biometrics:**

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R. Derakhshani, S. Schuckers, L. Hornak, L. O'Gorman, "Determination of Vitality from A Non-Invasive Biomedical Measurement for Use in Fingerprint Scanners," Pattern Recognition, Feb. 2003, pp. 383-396.

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## Book Chapters:

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## Special Issues:

X. Tang, S. Ma, L. O'Gorman, M. Tistarelli, "Image- and Video-Based Biometrics", (special issue, part I), IEEE Trans. Circuits and Systems for Video Technology, Jan. 2004.

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## Articles:

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- "What is Pattern Recognition?" 1-2003
- "Pattern Recognition in Sports," 2-2003
- "Pattern Recognition in Security and Entertainment," 3-2003
- "Pattern Recognition in Maps," 4-2003
- "Pattern Recognition in Defense," 1-2004.

## SELECTED INVITED TALKS:

Rutgers University, CAIP Center (October 2003),

Stevens Institute (March, 2002),

Homeland Security Symposium, Rutgers University (November 2001),

Telcordia Technologies (March 2001), Princeton University (February 2001),

Biometric Consortium Meeting (September 2000),

Asilomar Microcomputer Conference (April 1999),

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West Virginia University (November 1998),

CardTech/SecurTech (February 1998),

University of Nebraska at Lincoln (Aug 1994),

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Hitachi Labs (December 1990),

NEC Labs (December 1990),

Penn State University (September 1990),

Sandia National Labs (July, 1988)

U.C. Berkeley (July 1988),

Bell Communications Research (March 1987),

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## **PATENTS GRANTED AND APPLIED:**

13 U.S. patents granted

8 U.S. patent applications

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## **PROFESSIONAL SERVICE:**

- NRC Assessment Panel for NIST Information Technology Lab: 1999-2004
- IEEE Trans. Circuits and Systems for Video Technology, Special Issue on Image- and Video-Based Biometrics, Guest Editor, 2004, Jan., Feb., issues
- IAPR Newsletter Editor: 2002-
- Editorial board member for:
  - Pattern Recognition
  - Machine Vision and Applications
  - International Journal of Document Analysis and Recognition
  - International Journal on Artificial Intelligence Tools (-1998)
- NJ Commission on Science and Technology, Review Committee, 2003
- NJ Center for Pervasive Information Technology, Princeton University, Advisory Board, 1999, 2002
- IEEE Computer Fellow Committee: 1998-2001
- IAPR Fellow Committee: 2000
- IAPR Industrial Liaison Committee: 1994-2000 (chair 1998)
- IEEE Security and Privacy Editor-in-Chief Search Committee, 2002
- IEEE PAMI Editor-in-Chief Search Committee, 1998
- Co-editor, IEEE Trans. Circuits and Systems for Video Technology, Special Issue on Image- and Video-Based Biometrics, 2003
- Associate Editor, Lecture Notes for Computer Science, GREC issue, 2003

- Industrial Advisory Board, CAIP Center, Rutgers University, 2001-
- IEEE PAMI Editor-in-Chief Search Committee
- IEEE Security and Privacy Editor-in-Chief Search Committee
- Co-chair, IEEE Workshop on Automatic Identification Advanced Technologies, Summit, NJ, Oct. 1999
- Program chair, IEEE Workshop on Automatic Identification Advanced Technologies, Stony Brook, NY, 1997
- IEEE Robotics and Automation TC co-chair on Auto-ID, 1997-
- Lecture Notes for Computer Science, associate editor, GREC issue, 2002
- Program Committee Member:
  - SPIE Conf. on Biometrics Technology for Human Identification, April 2004, Orlando
  - ICDAR, Int. Conf. Document Analysis and Recognition, 2003, Scotland
  - 3rd Int. Workshop Document Layout Interpretation and App. (DLIA, 2003)
  - 4th Int. Conf. Audio- and Video-based Biometric Person Authentication, 2003, UK
  - IEEE Workshop on Automatic Identification Advanced Technologies, April, 2002, NY
  - IAPR Document Layout Analysis and its Applications (DLIA), Sept 9, 2001, Seattle
  - 10-th International Conference on Database and Expert System applications DEXA' 99, Florence, Italy, Aug 30 - Sept 3, 1999
  - Int'l Workshop on Graphics Recognition, September 1999, Jaipur, India
  - Document Layout Interpretation and its Applications September 18, 1999, Bangalore, India
  - ICDAR'99, Int.l Conf. on Document Analysis and Recognition, Bangalore, India, Sept. 1999
  - IAPR Graphics Recognition (GREC), Nancy, France, 1997
  - ICDAR'97, Int.l Conf. on Document Analysis and Recognition, Ulm, Germany, Sept. 1997
  - ICDAR'95, Int.l Conf. on Document Analysis and Recognition, Montreal, Canada, Aug.. 1995
  - IAPR Graphics Recognition (GREC), Penn State, 1995
  - Int. Conf. Computational Linguistics, Speech, and Document Processing, 18-20 Feb, 1998, India
  - International Workshop on Visual Form (IWVF2), Capri, Italy, May 1994.
  - 11th Int Conference on Pattern Recognition, 1992, Amsterdam
  - IAPR Workshop on Machine Vision Applications, Tokyo, Japan, 1990
  - 10th Int Conference on Pattern Recognition, Atlantic City, NJ. 1990
  - IAPR Workshop on Syntactic and Structural Pattern Recognition in Murray Hill, NJ. Aug., 1990, (also local chair)



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